Service Information

Built-in Oven 6M
AKZM 654/IX

8525 654 53002
Last Modification: 15/10/11
Creation Date: 02/02/11

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This document is only intended for qualified technicans who are aware of the respective safety regulations.
Subject to modifications

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Spare Part List

Pos	12NC	Description
0251	**4801 211 01152**	Profile
0252	**4801 211 01163**	Trim lower
0400	**4801 211 02892**	Hinge
0470	**4801 211 01154**	Hinge running mechanism
1410	**4801 211 02899**	Oven glass assembly
1420	**4801 211 03172**	Door glass inner
1431	**4812 404 78858**	Support glass
1432	**4801 211 01173**	Glass intermediate
1910	**4801 211 01444**	Gasket door
2010	**4801 211 01155**	Rear panel enamelled
2450	**4801 211 01183**	Oven shelf
2470	**4801 211 03007**	Fat pan enamelled
3200	**4801 211 01188**	Glass panel + frame
3201	**4801 211 01165**	Ring push-push
3320	**4801 211 01169**	Push button
3340	**4801 211 01153**	Knob push-push
3342	**4801 211 01187**	Knob oven
3500	**4810 103 64134**	Display G2 EVO analogue
4400	**4812 361 18492**	Motor fan
4410	**4801 211 01162**	Air cooling fan
4412	**4801 211 01151**	Gasket water leakage
4430	**4819 515 48065**	Fan 6-blades
4510	**4801 211 01186**	Heating element circular 2000W
4520	**4801 211 03613**	Heating element upper/grill 2450W
4560	**4801 211 01147**	Heating element lower 1150W
4800	**4801 211 01172**	Cable harness selector switch-display
4901	**4812 290 68255**	Clamp cable
4902	**4812 321 48026**	Cap feed through
4910	**4812 290 68329**	Connection block
5210	**4810 103 83938**	Control unit Ester
5570	**4801 211 01181**	Thermostat 155°C
6200	**4801 211 01145**	Oven switch 11 position
6201	**4801 211 01146**	Selector switch +/- incremental
6520	**4810 103 91431**	Lamp halogen 40W 230V
6550	**4801 211 01182**	Switch door assembly
6551	**4801 211 01177**	Screwed joint door switch
6910	**4801 211 01179**	Probe oven temperature
9041	**4801 211 04065**	Damper oven door
9150	**4819 505 18145**	Nut fan motor
9227	**4819 532 28281**	Washer
9622	**4801 211 01167**	Support push-push
9640	**4801 211 02934**	Gasket
9930	**4801 211 01185**	Spacer oven
9931	**4801 211 04721**	Kit oven fixation

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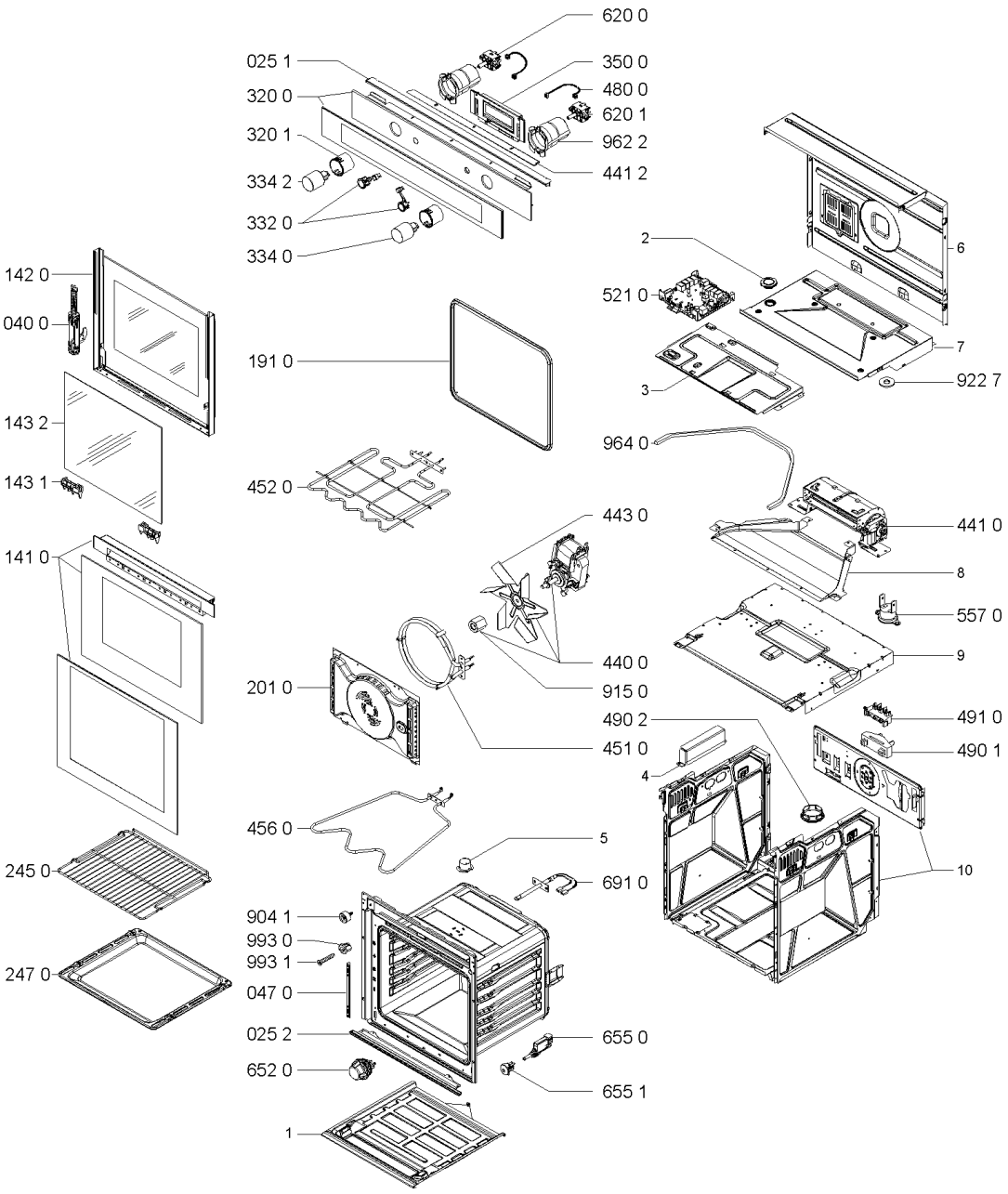
Exploded View



4000 103 72685

Technical Data

Electrical base data

Rated voltage	230-240 V~
Main connection	230-240 V 1N~50 Hz

Power Consumption

Total connected load	2700 W
Upper heating element/Grill	2450 W
Forced air	2000 W
Lower heating element	1150 W
Booster	2700 W

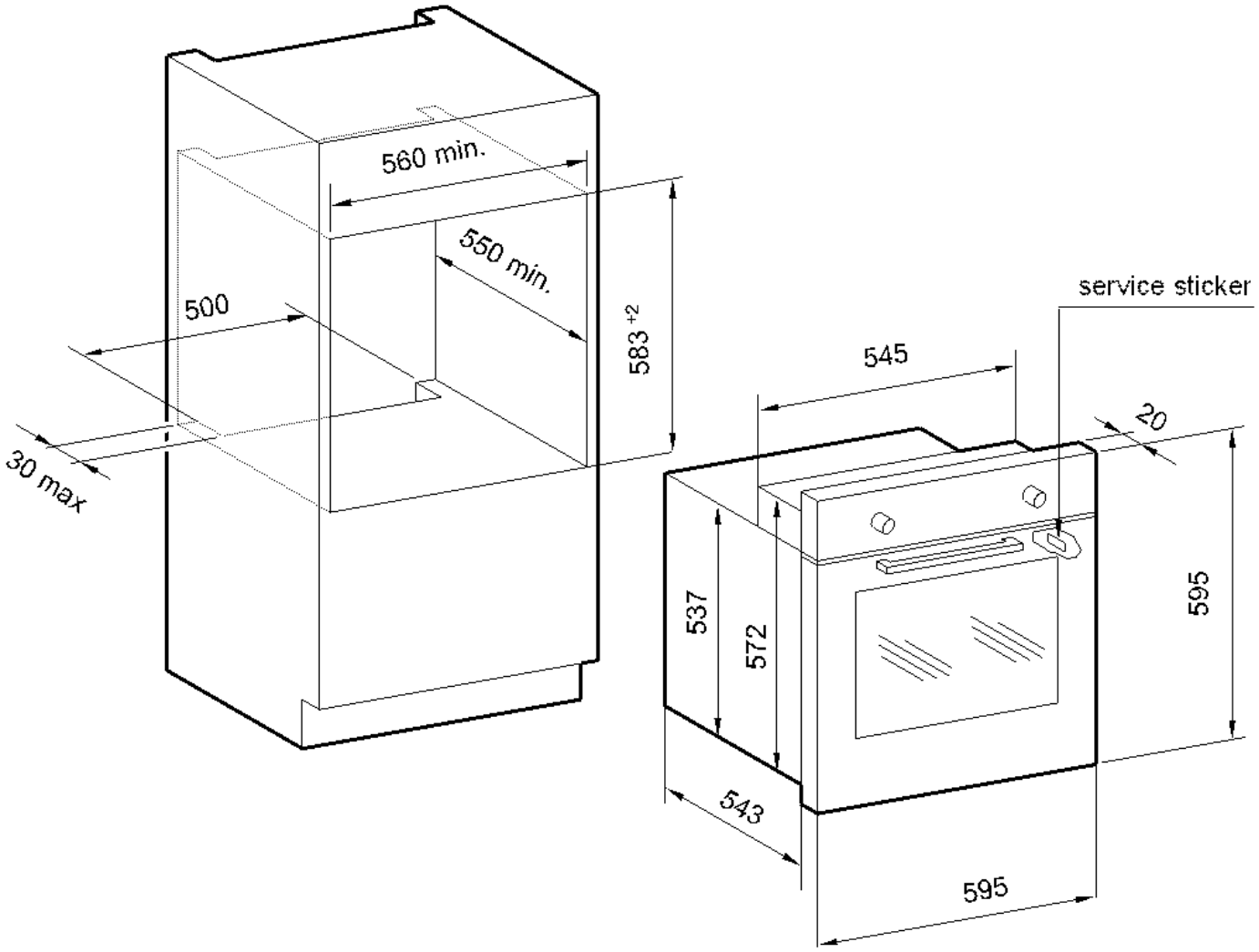
Electrical components

Auto timer	G2 EVO

Accessories

Fat pan enameled	452.5 x 375 mm
Grid chrome	452.5 x 369.2 mm

Dimensional Sketch



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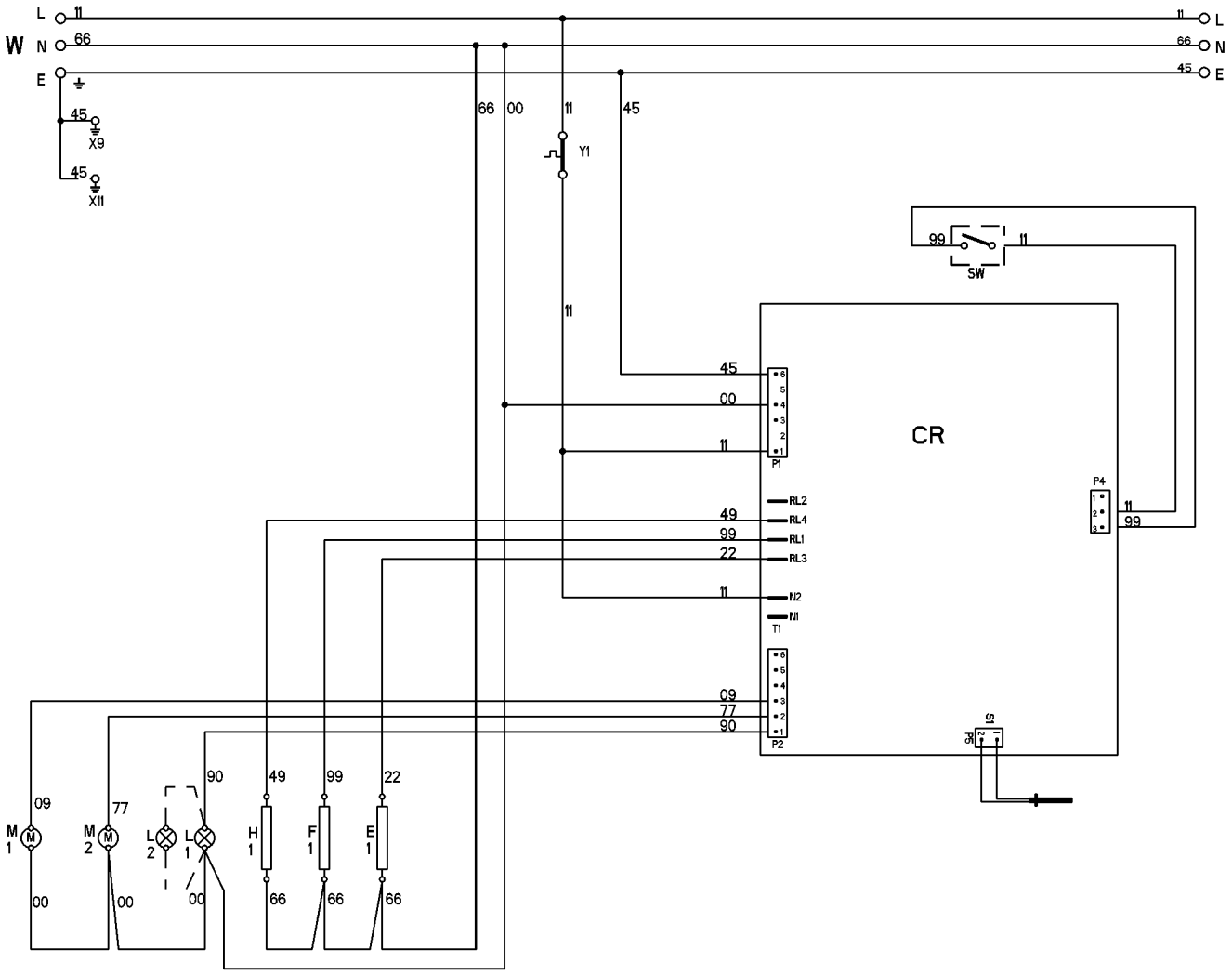
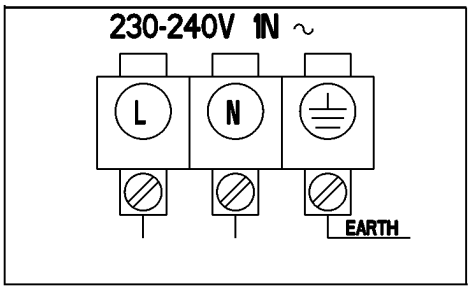
Wiring Diagram





4619 619 09581

Legend

CR	ELECTRONIC OVEN CONTROL UNIT
E1	UPPER HEATING ELEMENT
F1	CIRCULAR HEATING ELEMENT
H1	LOWER HEATING ELEMENT
L1	OVEN LAMP
L2	LATERAL OVEN LAMP
M1	OVEN FAN
M2	COOLING FAN
S	ELECTRONIC SENSOR
SW	DOOR SWITCH
Y1	THERMOLIMITER
W	MAINS TERMINAL BLOCK
X3	EARTH ELECTRONIC CONTROL UNIT
X9	EARTH UPPER HEATING ELEMENT
X11	EARTH LATERAL OVEN LAMP

00	BLACK
11	BROWN
22	RED
33	ORANGE
44	YELLOW
55	GREEN
66	BLUE
77	VIOLET
88	BLUE-SKY
99	WHITE
09	WHITE-BLACK
29	WHITE-RED
45	YELLOW-GREEN
49	WHITE-YELLOW
69	WHITE-BLUE
90	GREY
92	PINK

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Error Codes

Failure Code	Failure Type	Suggested Repair Action
F01	Probe	Temperature Probe error. First check probe connection, if ok disconnect the probe and measure its resistance (1000Ω+3.75*Temp ambient). If value is in range change AM.
F02	Temperature	Temperature error. Check heating elements insulation (disconnect the heating element and check each terminal for continuity to GROUND). If there is no continuity change AM. If there is continuity change heating element.
F03	EEPROM	EEPROM error. Check with the manual configuration menu that the oven is correctly configured and the test bit is set to ON. Wait 10 minutes. If F03 appears again, change AM.
F04	WIDE	WIDE communication error. First check the connection on P007 of AM. If it is OK check the connection of the WIRE that start from AM P007 to the UI board. If it is ok connect a new UI and check if the appliance works properly. If not change the AM.
F05	Latch (Pyro version only)	Latch error. First unplug the appliance, wait at least 10sec then reconnect. Verify that latch system repositioning works correctly (door has to be closed, motor has to run). If this happens, check the connection between AM and door latch system. If it is ok check micro switch functionality (door switch open if the door is open and latch switch open if the door is unlocked). If switches are ok then change AM.
F06	Door (Pyro version only)	Door error. First check connection between AM and door latch system. If it is ok check door switch functionality (open circuit if the door is open, closed circuit if the door is closed). If switch is ok then change AM.
F07	Cooking parameter data set error	Data set error. If the problem persists change AM.
F08	UI EEPROM error	User Interface EEPROM error. Change UI (Navigator or Atlas).
F09	UI SPI memory error	UI SPI memory error. Change UI (Navigator or Atlas).
F10	Function knob error	The value read is not allowed for the selected knob. First check connection between UI (dummy or smart) and the knob. If it is ok, check that the oven is correctly configured using the manual configuration menu. If the problem persists change the knob encoder. If the problem still persists change the AM.
F11	6^{TH} sense error	6^{TH} sense error, Voltage error or Current error. Verify power supply voltage is 230±10% If supply is within tolerances, change AM.
F18	Zero crossing error	Not foreseen.
F20	FPGA error (only ATLAS)	Change UI.
F21	HMI input error (only ATLAS)	Change UI.

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Configuration Description

Manual Configuration Procedure

- ✓ To be done at appliance manager (AM) / user interface (UI) exchange
- ✓ To access the manual configuration menu, the function knob have to be positioned to the 0 (off) position
- ✓ Configuration numbers are on the rating plate – XX/XX : respectively the UI/AM numbers, if UI is 00, you do not need to configure the User Interface.
- ✓ The configuration menu can be accessed only within the first minute after the oven is plugged in.

At the end of the procedure don't forget to set the TEST BIT to ON, if it's not done, the oven will show the F03 error message after a few minutes.

G2Evo User Interface (with one or two buttons)

Within the first minute after plug in:

1) Press the OK button for 5 seconds → a long "beep" is played;
2) Press the OK button 4 times (must be pressed in 5 seconds) → display shows "CONF" and the configuration number

3) Press the OK button for 3 seconds to enter the edit mode → configuration code blinks
4) Turn the temp. knob to select the configuration code → confirm it by pressing OK for 3 seconds
5) Turn clockwise the function knob until you reach the TEST string→you'll see one of these strings

6) Press OK for 3 seconds → TEST BIT status blinks
7) Turn the temp. knob to set the TEST BIT to ON → press OK for 3 seconds
8) Finished, to exit the configuration menu, turn the function knob clockwise to 0 (off)

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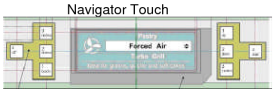
Navigator and Atlas User Interface

Navigator Touch



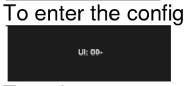
Navigator Knobs

Atlas (Flagship)

Within the first minute after plug in:

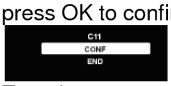
1) Press the OK and << buttons for 5 seconds → a long “beep” is played;
2) Press the OK button 4 times (must be pressed in 5 seconds) → display shows “CONF”

3) To enter the configuration menu, press the OK → UI:xx is shown



4) Turn the temperature knob (up/down arrow buttons if touch) to select the UI configuration and press OK to confirm → AM:xx is shown

5) Turn the temperature knob (up/down arrow buttons if touch) to select the AM configuration and press OK to confirm → CONF menu is shown again



6) Turn the temperature knob (up/down arrow buttons if touch) and go to the TESTED BIT

7) Press OK to enter edit mode

8) Turn the temperature knob (up/down arrow buttons if touch) to select the “TESTED BIT: ON” string and press the << (back) button to confirm → menu is shown again

9) Turn the temperature knob (up/down arrow buttons if touch) and go to END string, press OK to exit the manual configuration menu

81003106en

Testprogram

DEMO MODE for MINERVA ELECTRONIC OVENS

G2EVO Display

Functionality: In this state the user interface shows a sequence of screen that represent the oven features. All the electric loads (heaters) are switched OFF. The only loads that are managed like as during the normal behavior of the oven are the lamp, and the cooling fan.

Procedure: the procedure to enter in Demo mode is:
With the function knob on 0 (off)
Within the first minute from oven plug in:

1. OPEN the door
2. Keeping the DOOR OPEN, press BACK button for 5 seconds

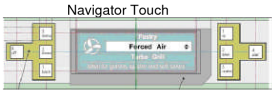
At this point the display starts the screen sequence described here below.
In Demo mode the user interface inputs have no impact on the oven; the UI shows the screen related to the position like in normal functions with the difference that the loads are not switched ON. Only the lamp is switched ON if the position if the function knob required it ON or if the door is open.
After 2 minutes of no interaction between the customer and the OVEN the screen sequence starts again and the LAMP is switched OFF.

NOTE: DEMO mode must be set within 1 minute after the power ON. It is not possible set the DEMO mode after 1 minute from the power ON.
Power OFF will not delete the Demo mode. Once the DEMO mode is activated it will be maintained at the next power ON. In order to deactivate the DEMO mode the same procedure to enter has to be executed.

On the oven versions with only one button, to exit the DEMO MODE, you need to enter into the MANUAL CONFIGURATION menu, exiting the MANUAL CONFIGURATION menu, also the DEMO MODE will be cancelled.

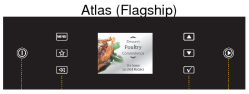
Navigator / Atlas (Flagship) Display

Navigator Touch



Navigator Knobs

Atlas (Flagship)



Functionality: In this state the user interface shows a sequence of screen that represent the oven features. As an alternative the buttons can be operated as normal, but all the electric loads (heaters) are switched OFF. The only loads that are managed like as during the normal behavior of the oven are the lamps, and the cooling fan.

Procedure: the procedure to enter in Demo mode is:
With the function knob on 0 (off)
Within the first minute from oven plug in:

1. OPEN the door
2. Keeping the DOOR OPEN, press BACK button for 5 seconds

Activation/deactivation is confirmed by a sound.

On power up, when demo mode is activated, system directly jumps to stand by screen by taking 12:00 as default TOD.
After two minutes of inactivity system automatically jumps to demo mode slideshow.

NOTE: DEMO mode must be set within 1 minute after the power ON. It is not possible set the DEMO mode after 1 minute from the power ON.
Power OFF will not delete the Demo mode. Once the DEMO mode is activated it will be maintained at the next power ON. In order to deactivate the DEMO mode the same procedure to enter has to be executed.

81003107en

Configuration code

..... GE00-AN01

Service Bulletin 4812 715 40401

AUTHOR: Juergen Reinhardt
Last Update: 25/03/13
VERSION: 1.0
TITLE: Improved oven shelf grid design
SUBJECT: Stability issues with oven shelf grid

REMEDIAL ACTION

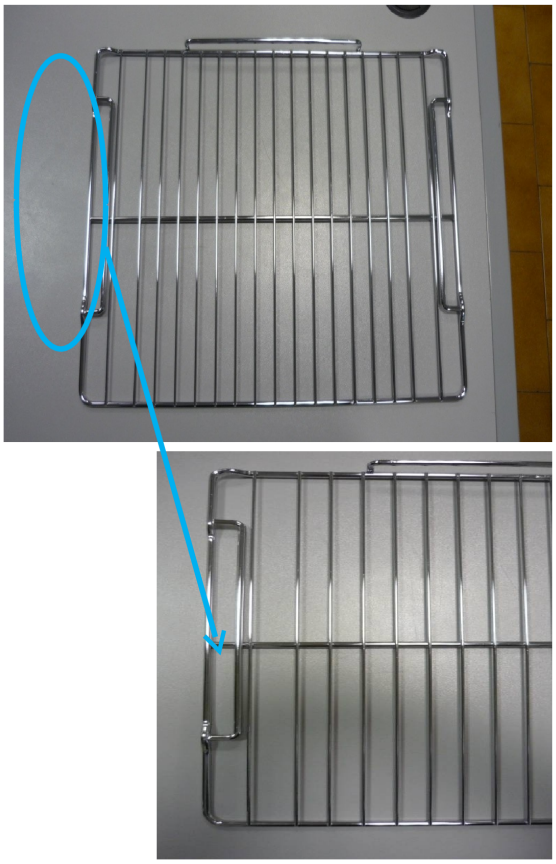
The mechanical design of the oven shelf grid has been modified for solving the stability issue.
The oven shelf grid 4801 211 01183 has been substituted by 4810 105 18218.

Technical Failure Code

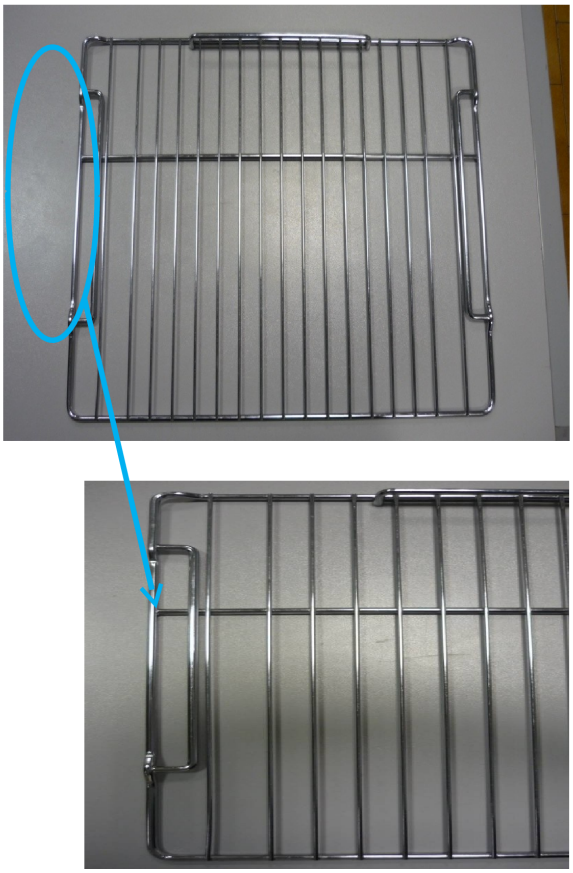
654 2440 Cx A

Oven grid stability

Old code: **4801 211 01183**



New code: **4810 105 18218**



Wire has been moved toward the back in order to have more stability when grid is inserted on lateral grids and sliding shelves

F2S Number

F2S000551

Service Bulletin 4812 715 40418

AUTHOR: Juergen Reinhardt
Last Update: 29/12/14
VERSION: 1.1
TITLE: Lower heating element has been changed
SUBJECT: Deletion of lower heating shield in production requires new lower heating element.

REMEDIAL ACTION

From 21.January 2013 onward the bottom heater protection has been deleted. With the introduction of this modification a new bottom heating element must be used for the repair. The method of fixation and dismantling have been not affected by the change. All models using the code 4801 211 01147 and 4801 211 04145 are involved.

For the models below the change is effective from 26.August 2013 onward:

852587901100
852587901101
852589001100
852589001101
852589101100
855648822000
855648822001
855649122000
855649122001

For the models below the change is effective from 25.September 2014 onward:

8525 820 61100
8525 827 38100
8525 827 38101
8525 827 38110
8525 828 01000
8525 828 01001
8525 829 01000
8525 829 01001
8525 830 29000
8525 830 29001
8525 830 29002
8525 830 29003
8525 830 29004
8525 831 29000
8525 831 29001
8525 831 29002
8525 831 29003
8525 832 29000
8525 832 29001
8525 832 29002
8525 832 29003
8525 833 29000
8525 833 29001
8525 833 29002

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8525 833 29003
8525 833 29010
8525 833 29011
8525 834 38000
8525 834 38001
8525 834 38002
8525 834 38003
8525 834 38004
8525 834 38005
8525 834 38006
8525 834 38007
8525 834 38010
8525 835 38000
8525 835 38001
8525 835 38002
8525 835 38003
8525 835 38004
8525 835 38100
8525 835 38101
8525 835 38102
8525 835 38110
8525 835 53100
8525 836 61000
8525 837 61000
8525 837 61001
8525 837 61002
8525 837 61003
8525 837 61004
8525 837 61010
8525 837 61100
8525 837 61101
8525 837 61102
8525 838 10000
8525 838 10001
8525 838 10002
8525 838 10003
8525 838 10004
8525 838 10100
8525 839 61000
8525 839 61001
8525 839 61100
8525 839 61110
8525 892 01100
8525 892 53100
8556 459 22000
8556 459 22001
8556 459 22002
8556 460 22000
8556 460 22001
8556 460 22002
8556 460 22003
8556 460 22004
8556 478 22000
8556 478 22001
8556 478 22010

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8556 478 22011
8556 478 22012
8556 482 22000
8556 482 22001
8556 487 22000
8556 487 22001
8556 487 22002
8556 512 22000

For models with 1150W / 230V using 4801 211 01147 or 4810 103 68805 heater order the new bottom heater –> 4810 105 51720

For all models with 1150W / 400V using 4801 211 04145 heater order the new bottom heater –> 4810 105 51732

Technical Failure Code

Kxx 4560 Cx A

F2S Number

- DRAFT! – DRAFT! – DRAFT! – DRAFT! – DRAFT! -

Service Bulletin 4812 715 40394

AUTHOR: Juergen Reinhardt
Last Update: 29/08/13
VERSION: 1.2
TITLE: Replacing electronic causes new configuration code
SUBJECT: Important –> applicable for ovens with 5 baking shelf position only (67 ltr.). Ovens with 4 Baking shelf position are not affected !

The following control boards have been replaced by updated versions:
481010394541–> 484000000611
481010441679–> 484000000611
481010476592–> 484000000611
481010383958–> 484000000620
481010383938–> 484000000620
481010384643–> 484000000620
481010476590–> 484000000620
480121103539–> 484000000620
480121103433–> 484000000620
481010396089–> 484000000621
481010357191–> 484000000622
481010396094–> 484000000622
481010458725–> 484000000622
481010471418–> 484000000622

The sucessor control boards are delivered with 2 supplement. One supplement is showing a conversion table for new configuration code, the other one is explaining the function change and must be hand out to the customer.

Technical Failure Code

KXX 5210 A1 I

- DRAFT! – DRAFT! – DRAFT! – DRAFT! – DRAFT! -

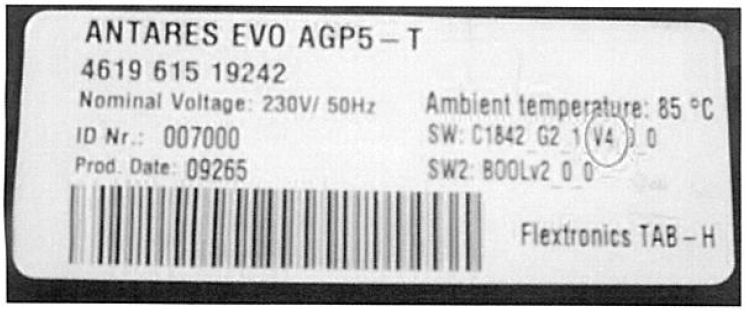
- DRAFT! – DRAFT! – DRAFT! – DRAFT! – DRAFT! -

486081500047

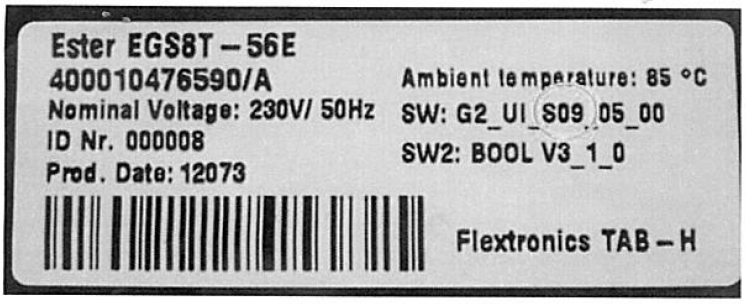
FOR OVENS WITH 5 COOKING LEVELS AND FOR SW VERSION ≥ 9: USE THE NEW CONFIGURATION CODES IN THE TABLE

BRAND	SELF CLEANING (PYRO)	CURRENT		Ring heating element	Function Knob positions	new # Configuration	old # configuration
						SW version ≥ 9	SW version<9
BK	NO	16A	PureClean	Yes	11	8	N/A
WH	NO	16A	StarClean	Yes	11	9	N/A
WH	NO	13A	StarClean	Yes	11	10	N/A
WH	NO	16A	-	Yes	11	13	10
BK	NO	16A	-	Yes	11	14	11
WH	NO	13A	-	Yes	11	15	1
BK	NO	13A	-	Yes	11	16	N/A
WH	YES	16A	-	Yes	11	13	3
BK	YES	16A	-	Yes	11	14	4
WH	YES	13A	-	Yes	11	15	2
BK	YES	13A	-	Yes	11	16	N/A
WH	NO	16A	-	NO	9	17	8
BK	NO	16A	-	NO	9	18	12
WH	NO	13A	-	NO	9	19	9
WH	NO	16A	StarClean	NO	11	20	N/A
WH	YES	16A	-	NO	11	17	7
BK	YES	16A	-	NO	11	18	8
WH	YES	13A	-	NO	11	19	11
BK	YES	13A	-	NO	11	20	N/A

Power <3000W=13A
Power >3000W=16A


ANTARES EVO AGP5 – T
4619 615 19242
Nominal Voltage: 230V/ 50Hz
ID Nr.: 007000
Prod. Date: 09265
Ambient temperature: 85 °C
SW: C1842 G2 1 V4 0 0
SW2: BOOLv2 0 0
Flextronics TAB – H

This means that the SW version is lower than 9. Old configuration are written on the oven label. Convertion table has to be used to check which is the configuration that has to be set



This means that the SW version is greater than 9. New configuration are written on the oven label. This is the configuration that has to be used.

- DRAFT! – DRAFT! – DRAFT! – DRAFT! – DRAFT! -

- DRAFT! – DRAFT! – DRAFT! – DRAFT! – DRAFT! -

F2S Number

- DRAFT! – DRAFT! – DRAFT! – DRAFT! – DRAFT! -

Service Bulletin 4812 715 40374

AUTHOR: Pasquale Lattuca
Last Update: 16/09/11
VERSION: 1.0
TITLE: New push button ring.
SUBJECT: Due to loosing color and position on push button ring code 4801 211 01165 changed production since week21/2011 to new ring, order code 4801 211 02715.

REMEDIAL ACTION

In case of a ring exchange, please exchange all mentioned rings from the push button.

New rings, order code 4801 211 02715 on stock since end of 2009.

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